# The Acceptability of an Intervention to Prevent Elder Mistreatment Among Family Caregivers to Persons Living with Dementia: A Multi-Method Pilot Study

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## *Abstract*

**Background:** Elder mistreatment (EM) occurs in many as one-half of dementia care partners. Psychological EM is the most common form of EM by family caregivers. The Knowledge and Interpersonal Skills to Develop Enhanced Relationships (KINDER) intervention was developed to prevent psychological EM, one of the most common EM types. Caregivers found the initial web-based version (KINDER 1.0) to be acceptable, and appreciated the program's authenticity. However, caregivers also reported difficulty using the intervention's web-based platform and expressed a desire to engage with other family caregivers. Based on this feedback, KINDER was revised to integrate three facilitated small group discussion sessions conducted by videoconference. Reading materials and exercises featured in the web-based portal were converted into a workbook delivered by PDF or mailed hardcopy.

**Objective:** The purpose of this study is to evaluate the acceptability of the revised KINDER intervention.

**Methods:** The investigators collected semi-structured qualitative interviews with a purposeful sample of family caregivers following participation in KINDER (N=11), as well as post-intervention survey data (N=71). The qualitative interview codebook and survey questions were informed by the Sekhon's Theoretical Framework of Acceptability (TFA). Components of acceptability in this framework include affective attitude, burden, ethicality, intervention coherence, opportunity costs, perceived effectiveness, and self-efficacy at completing activities. Qualitative interviews were coded by two independent coders using a thematic analytic approach, while survey data was analyzed using descriptive analyses (e.g., frequencies and percentages).

**Results:** Caregivers reported high levels of overall satisfaction with KINDER; 80.3% (53) of participants reported they were "Very Satisfied" with the intervention and 19.7% (13) indicated they were "Satisfied." Group discussion sessions and lesson readings were particularly valued, with more than 80% of caregivers reporting these components were "Very valuable." Qualitative findings supported survey responses and provided additional information about caregivers' experiences with the revised intervention. Themes addressed 1) the interventions' alignment with caregiver values (affective attitude, intervention coherence, ethicality), 2) beliefs about the effectiveness of the program (perceived effectiveness), 3) difficultly of participating in the program relative to its perceived overall value (burden, opportunity cost, self-efficacy), and 4) recommendations to further improve the intervention.

**Conclusions:** These findings indicate that KINDER was well-received among family caregivers, who reported high levels of satisfaction and positive feedback on its components. The addition of virtual group discussion sessions was particularly valued.

The use of multiple data collection methods in this research provided a comprehensive understanding of caregiver experiences, highlighting the intervention's acceptability as well as areas for improvement. This study contributes to current knowledge by demonstrating the acceptability of a novel intervention to prevent EM by family caregivers to persons living with dementia. Future research should focus on testing the efficacy of KINDER and exploring its implementation in health and social service settings. Clinical Trial: NCT05783102

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## Original Paper

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## Abstract

**Introduction:** Elder mistreatment (EM) occurs in many as one-half of dementia care partners. Psychological EM is the most common form of EM by family caregivers. The *Knowledge and Interpersonal Skills to Develop Enhanced Relationships* (*KINDER*) intervention was developed to prevent psychological EM, one of the most common EM types. Caregivers found the initial web-based version (*KINDER* 1.0) to be acceptable and appreciated the program's authenticity. However, caregivers also reported difficulty using the intervention's web-based platform and expressed a desire to engage with other family caregivers. Based on this feedback, *KINDER* was revised to integrate three facilitated small group discussion sessions conducted by videoconference. Reading materials and exercises featured in the web-based portal were converted into a workbook delivered by PDF or mailed hardcopy.

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**Conclusions:** These findings indicate that *KINDER* was well-received among family caregivers, who reported high levels of satisfaction and positive feedback on its components. The addition of virtual group discussion sessions was particularly valued. The use of multiple data collection methods in this research provided a comprehensive understanding of caregiver experiences, highlighting the intervention's acceptability as well as areas for improvement. This study

contributes to current knowledge by demonstrating the acceptability of a novel intervention to prevent EM by family caregivers to persons living with dementia. Future research should focus on testing the efficacy of *KINDER* and exploring its implementation in health and social service settings.

**Trial Registration:** ClinicalTrials.gov: NCT05783102

**Keywords:** Family caregiving; dementia; elder mistreatment; intervention; acceptability; qualitative

## Introduction

In the United States (U.S.), approximately 7.5 million adults aged 60 and older experience elder mistreatment (EM) annually [1, 2]. EM is defined by the World Health Organization (WHO) as “a single or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person” [3]. Among community-dwelling older adults living with dementia, 80% receive informal care at home from family caregivers [4]. Family caregivers typically enter this role with minimal training and support to manage complex and demanding care needs, including the management of frustrating behavioral symptoms of dementia [5]. Despite providing essential care, caregivers, unfortunately, are among the most likely to engage in EM: an estimated one-third to over one-half of caregivers self-report mistreatment toward the care recipient living with dementia [6, 7]. Given the high prevalence of EM by caregivers to persons living with dementia, this population is an important group to target in interventions designed to prevent EM.

Psychological EM accounts for the majority of mistreatment by caregivers and is the most common type of EM outside neglect [8-10]. Behaviors characterizing psychological EM are wide-ranging. It includes verbal and non-verbal behaviors that may inflict emotional pain, fear, and/or distress in the older person, including actions like making threats, humiliating, or ignoring the older person [11]. Victims of psychological EM face an increased risk of anxiety, depression, and chronic disease [12, 13]. Despite having psychological harms comparable to those of physical mistreatment, the effects of psychological EM, specifically among persons living with dementia, are much less studied. The impact of psychological EM may be even more severe among persons living with dementia than older adults who are cognitively intact: these care recipients may be less able to remove themselves from harmful situations and may fear

reporting EM given the possibility of losing a caregiver's support. Importantly, psychological EM often co-occurs with other types of mistreatment, such as neglect and physical abuse [14]. With the number of persons living with Alzheimer's Disease and related dementia (AD/ADRD) projected to double by 2060, there is an urgent need to identify and develop effective strategies to prevent caregiver psychological EM towards this population [15].

*Knowledge and Interpersonal Skills to Develop Enhanced Relationships* (*KINDER*) is a psychoeducational intervention developed to prevent psychological EM by caregivers to the person living with dementia to whom they provide care. The intervention focuses on building healthy relationships between caregivers and their care recipients as a framework to prevent mistreatment, following similar successful approaches in the area of intimate partner violence [16, 17]. After identifying barriers to participation in its initial pilot study, *KINDER* recently underwent an additional round of testing to determine the intervention's feasibility, preliminary efficacy, and acceptability [18]. Findings from the second pilot test indicate feasibility, including an 82.2% retention rate in a pre- and post-test pilot study, as well as preliminary efficacy, including statistically significant decreases in the occurrence of psychological EM [19]. The current study examines the acceptability of the *KINDER* intervention. "Acceptability" is a concept believed to drive adherence, engagement, and future adoption of behavioral intervention, and therefore, a critical criterion for intervention translation [20].

## Interventions to Prevent Elder Mistreatment Among Family Caregivers

Despite the high prevalence of EM in the context of dementia caregiving, few interventions have been tested to prevent EM by caregivers to persons living with dementia, regardless of EM type [21, 22]. Even less is known about the acceptability of these interventions by their intended audiences, which is a critical factor in determining participation adherence, implementation, and outcomes. In one of the earliest efforts to test the

impact of an information-based supportive caregiver intervention on reducing EM, the *STrAtegies for RelaTives* (*START*) program sought to mitigate caregiver EM by addressing known mental health EM risk factors affecting caregivers, such as depression, through a supervised manual-based coping program [23]. Despite positive findings of decreased anxiety and depression for caregivers, results from this study showed no differences between the intervention and control group participants on EM outcomes. Recently, the *Comprehensive Older Adult and Caregiver Help* (*COACH*) intervention, also aimed at reducing EM, revealed promising results [24]. Caregivers who participated in up to 12 weekly one-on-one supportive caregiver coaching sessions, which included topics like goal setting, experienced a statistically significant decrease in mistreatment behaviors compared to an information-only control group condition. While such findings are hopeful, little is known about the acceptability of the *COACH* program among caregivers outside a research context.

Similarly, the *RISE* intervention combines tailored support, including goal setting, with advocacy for individuals in the Adult Protective Service (APS) system. Consistent with its person-centered approach, at the discretion of the victim, the intervention allows for the inclusion of perpetrators of mistreatment, with goals that could include repairing the relationship [25]. While acceptability data from the older adult victims and caregivers involved in *RISE* have not been published, a recent study examining APS worker perceptions of *RISE* found that the program was described as being a valuable resource to address victims' needs that fall outside of or otherwise complement what APS can provide [26]. Among caregivers who engage in EM, little is known about their willingness to participate in interventions like *COACH* and *RISE*. These interventions nonetheless provide important examples of ongoing innovative approaches researchers are taking to mitigate EM.

## The *KINDER* Intervention

*KINDER* was developed to reduce the occurrence of psychological EM in the context of

family caregiving to persons living with dementia by focusing on the relationship between the caregiver and care recipient. The goal of *KINDER* is both the primary *and* secondary prevention of psychological EM; that is, the aim is twofold: to prevent EM from occurring in the first place and reduce such behaviors if they are already occurring [21]. While the intervention focuses on psychological EM of persons living with dementia by a caregiver, the content also addresses other forms of EM, like neglect and physical mistreatment. This is important given the likelihood of more than one type of mistreatment occurring simultaneously within the care dyad [14]. To distinguish between the first and the more recent version of *KINDER*, we refer to the initial version as "*KINDER* 1.0" and the most recent version as "*KINDER*."

## *KINDER 1.0*

### Structure and Components

*KINDER* 1.0 was tested between March 2020 and September 2021. This first version was an 8-week, web-based intervention [18, 27]. The intervention was delivered asynchronously to give caregivers flexibility in completing lessons. Caregivers received weekly reminders to log into the web-based portal to complete independent lessons. Content was developed based on existing literature about risk factors for low-quality care, including potentially harmful care and EM, related to the care relationship (e.g., prior occurrence of mistreatment) [28], as well as findings from qualitative focus groups and one-on-one interviews with caregivers about their experiences managing relationship strain [29]. Topics included education about community resources and seeking help, self-care, common brain changes with dementia, responding to behavioral symptoms of dementia, recognizing EM, communicating with persons living with dementia, managing difficult topics around safety and independence, managing mental health conditions, and coping with stress related to the care relationship. Each lesson in *KINDER* 1.0 included a brief story-based video informed by qualitative focus group findings, a reading that elaborated on topics from videos (e.g., communicating with a person living with dementia), a

reading quiz, and a journal reflection. In addition, caregivers were advised each week to engage in a pleasant, self-care activity.

### Findings

Of the 27 caregivers who enrolled in *KINDER* 1.0, only 7 completed the intervention (i.e., each lesson through Lesson 8) [18]. While a low proportion of completers is not unusual for an asynchronously delivered intervention, the investigators sought to better understand low treatment fidelity [30]. In-depth, semi-structured qualitative interviews were conducted with these caregivers to understand their experiences while participating in *KINDER* 1.0. Findings illustrated overall acceptability of the program among completers, who reported liking the program's authenticity and emphasis on self-care. Only one caregiver identified discomfort with content, noting that she could not relate to depictions of caregivers becoming angry and that this made her feel uneasy. Technical problems with the web-based platform (e.g., too complex of a display to track pleasant activities) were also identified as a likely barrier to participation. When asked how to improve the program beyond the technical challenges, caregivers expressed a desire to interact with other family caregivers during their participation in the program.

## *Revisions to KINDER 1.0*

Based on caregivers' feedback on *KINDER* 1.0, and prior studies demonstrating the value of group-based interventions, *KINDER* 1.0 was revised as *KINDER* to include virtual synchronous and group-based components over an 8-week period [31, 32]. Three group-based discussion sessions held via videoconference were integrated into independent lessons. Small group discussion sessions occurred during Week 1, Week 4, and Week 8. Discussion sessions were facilitated by two members of the study team, including the intervention developers (a geropsychologist and a gerontologist) and/or a nurse interventionist who received training prior to the intervention on how to deliver the program with fidelity.

Participants received two weekly emails reminding them to complete independent lesson activities. Participants also received a telephone introduction from one of the facilitators in prior to the start of the first discussion session (i.e., Week 0), and two check-in calls during Weeks 3and 6 to support adherence. Web content from *KINDER* was adapted into a workbook, available as a PDF and as a printed hardcopy mailed to participants, depending on the caregiver's preference. Videos could be accessed by participants using a URL link and/or a QR code found in their workbook. Figure 1 in Meyer et al., (2025) illustrates the structure of the revised intervention.

## Purpose of the Present Study

This multi-method study aimed to evaluate the acceptability of the revised *KINDER* intervention among caregivers of persons living with dementia to support future implementation. Evidence of acceptability is particularly important for the *KINDER* intervention, given the sensitive nature of the topics covered, which could deter future participation among caregivers. To determine intervention acceptability, we administered satisfaction surveys to caregivers following their participation in the intervention and conducted in-depth qualitative interviews with program completers to elucidate multiple components of acceptability and understand opportunities for program improvement. Findings will inform future *KINDER* refinements and guide decisions about whether the intervention should proceed to efficacy testing.

## Methods

Of the 151 caregivers registered to participate in *KINDER*, 98 caregivers completed the program when it was offered in a community-based service setting from April 2023 to March 2024 [19]. Enrollment in the feasibility study was optional; 72.4% (71) of caregivers who attended the program indicated interest in participating, of which 63.4% (45) were enrolled in

a pre- and post-test feasibility study. In the post-test survey, participants were asked about the acceptability of the *KINDER* intervention via survey. Caregivers who were not enrolled in the pre- and post-test study also received an invitation to complete a satisfaction survey at the end of the program. Of the 53 caregivers who participated in *KINDER* outside the feasibility study, 64% (34) completed the satisfaction survey. Additional information on the pre- and post-test study design can be found in Meyer et al., (2025).

## Conceptual Model of Acceptability

Data collection tools to assess intervention acceptability were informed by Sekhon's Theoretical Framework of Acceptability [33]. This model includes seven components of acceptability with intervention activities: affective attitude, burden, ethicality, intervention coherence, opportunity costs, perceived effectiveness, and self-efficacy at completing intervention activities. Definitions of each component can be found in Table 1.

**Table 1:** *KINDER* codebook definitions

| Code | Definition |
|---|---|
| **Acceptability** | A multi-faceted construct that reflects the extent to which people delivering or receiving an intervention consider it to be appropriate, based on anticipated or experiential cognitive and emotional responses to the intervention. |
| **Affective attitude** | How an individual feels about the intervention. |
| **Intervention coherence** | The extent to which the participant understands the intervention and how it works. |
| **Perceived effectiveness** | The extent to which the intervention is perceived as likely to achieve its purpose. |
| **Burden** | The perceived amount of effort that is required to participate in the intervention. |
| **Opportunity cost** | The extent to which benefits, profits, or values must be given up to engage in the intervention. |
| **Self-efficacy** | The participant's confidence that they can perform the behaviors required to participate in the intervention. |

Generally, these components reflect participants' perceptions of the intervention's appropriateness based on their cognitive understanding of and emotional experiences during the intervention. Using a multi-component framework of acceptability can uncover complex and nuanced responses to an

intervention, allowing participants to endorse certain aspects while recognizing opportunities for improvement in others. Incorporating necessary adjustments identified in the findings from an acceptability study can improve intervention feasibility and overall acceptance and has driven efforts to continually improve the *KINDER* program [33].

## Data Collection

### *Survey Data*

Quantitative data on intervention acceptability were collected through post-intervention surveys. Surveys were self-administered online using the REDCap data capture system [34]. Caregivers were asked about their overall satisfaction with *KINDER* and how likely they would be to recommend the program to other caregivers. Response options were recorded on a 5-point Likert scale, ranging from “Strongly disagree” (0) to “Strongly agree” (4). Caregivers also rated how valuable they found each component of the intervention to be, with response options including “Not at all valuable,” (0) “Somewhat valuable,” (1) and “Very valuable” (2). Detailed survey data about caregiver experiences while participating in the discussion sessions was collected, given these sessions were a newly added feature to the intervention. Caregivers rated their level of agreement with statements about the discussion sessions (e.g., “I felt comfortable with sharing experiences with others”) on a 5-point Likert scale, ranging from “Strongly disagree” (0) to “Strongly agree” (4).

### *Interview Data*

Purposeful sampling was used to identify 23 caregivers enrolled in the feasibility study to participate in an in-depth, semi-structured qualitative interview following participation in *KINDER,* among whom 11 agreed to participate. We invited participants to be interviewed to ensure the inclusion of caregivers with across genders, races, ethnicities, and care recipient relationship-types. Interviews were conducted using Zoom videoconferencing software and recorded for accuracy. The interview guide used to evaluate acceptability of the revised

*KINDER* intervention aligns with the one previously used to evaluate the initial version of the program, *KINDER* 1.0. (See Meyer et al., 2023.) Topics included caregiver perceptions on how their participation affected care relationships, the perceived skills developed while participating, the most and least valuable components, any potential discomfort with intervention modules, barriers to participation, and recommendations on how to improve the program.

## Data Analysis

Survey data were analyzed using descriptive statistics, including frequencies, percentages, means, and measures of variance. All analyses were conducted in Stata 18.0 [35]. Qualitative interview recordings were professionally transcribed before analysis. Transcripts were analyzed using a modified version of Braun and Clark's thematic analytic approach [36]. This analytic approach was selected for its flexibility, including the ability to code both latent and manifest content. Coding was primarily deductive and adhered to the seven components of the TFA [33]. Two investigators, KM and WW, independently coded each interview using the codebook. (See Table 1.) Differences in coding were discussed until agreement was reached. The lead investigator reviewed excerpts under each code, identified key themes, and prepared a draft write-up of the findings. The resulting themes were validated by the second coder to ensure their accuracy. All coding was conducted in NVivo 14 [37].

## Human Subjects Protections

The trial was registered at ClinicalTrials.gov (NCT05783102) and received approval from the Case Western Reserve University Institutional Review Board (STUDY20221333). Caregivers enrolled in the feasibility study provided written consent to participate in this research. For caregivers who were not enrolled in the feasibility study, a study information sheet was provided at the beginning of the online survey. All qualitative interview participants

received an information sheet prior to their scheduled interview and provided verbal consent at the start of the interview.

# Results

## Quantitative Findings

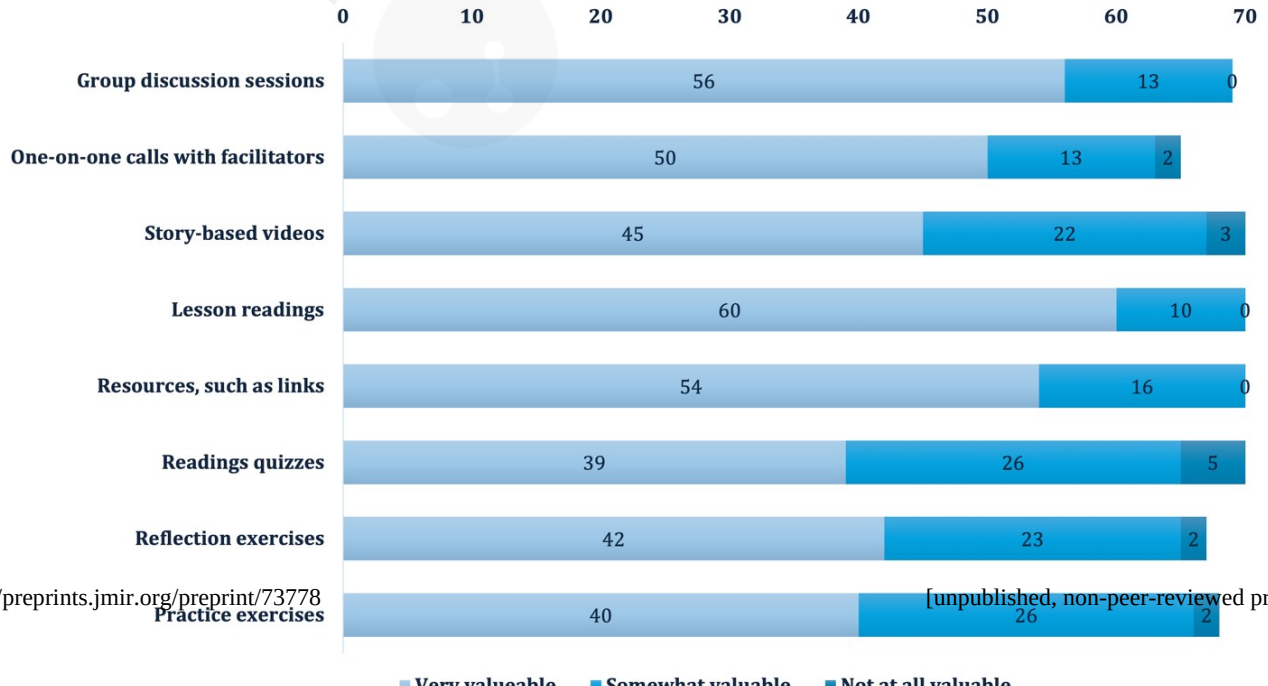
### *Sample Characteristics*

Caregivers enrolled in the feasibility study (*N*=45) were, on average, 59 years of age (SD=14.4), and most indicated female sex (88.6%; 39). Slightly more than half (56.8%; 25) identified as white, followed by Asian (15.9%;7), and then "Other" or multiple races (11.7%; 5), respectively. Approximately one-third of caregivers assisted a spouse (33.3%; 15), and a little over half cared for a parent or parent-in-law (55.6%; 25). Most caregivers had been in this role for at least 3 years (75%; 33). See Meyer et al., (2025) for additional sample characteristics.

A total of 71 caregivers filled out satisfaction surveys. In addition to the 37 caregivers who completed the follow up survey questions related to intervention acceptability as a part of the feasibility study, another 34 caregivers who were not enrolled in the pre- and post-test study completed the satisfaction survey anonymously. Demographic data is not available for these caregivers.

### *Survey Results*

Caregivers reported high levels of overall satisfaction with *KINDER;* 80.3% (53)



reported they were “Very Satisfied” with the intervention and 19.7% (13) indicated they were “Satisfied.” When asked about their level of satisfaction with individual program components, most components were rated as being “Very valuable.” Group discussion sessions (81.2%; 56) and lesson readings (85.7%; 60) had the highest ratings, while the component most frequently rated as “Not valuable at all” was the reading quizzes given at the end of each independent lesson (7.1%;5). The perceived value of all *KINDER* intervention components can be found in Figure 1.

Satisfaction survey results on the perceived value of *KINDER* intervention components (*N* = 71).

Group discussion sessions were also highly rated by caregivers, with most caregivers reporting they “Strongly agree” (67.7%; 46) or “Agree” (23.5%; 16) with the statement, “I enjoyed participating in group discussion.” Nearly all caregivers indicated that they felt comfortable sharing their experiences with other caregivers during these sessions; 77.1% (54) said they “Strongly agree” and 14.3% (10) indicated they “Agree” with the statement, “I felt comfortable sharing my experiences with other caregivers.” See Table 2 for complete results about the level of agreement with the various features of group discussion sessions.

**Table 2:** Caregivers’ level of agreement with features of group discussion sessions (*N* =71)

| | **Strongly Disagree** | **Disagree** | **Neither Agree nor Disagree** | **Agree** | **Strongly Agree** |
|---|---|---|---|---|---|
| The facilitators were knowledgeable about the topics covered. | 0(0.0%) | 0(0.0%) | 1(1.4%) | 8(11.4%) | 61(87.1%) |
| I felt comfortable sharing my experiences with other caregivers. | 0(0.0%) | 1(1.4%) | 5(7.1%) | 10(14.3%) | 54(77.1%) |
| I learned new ideas from other caregivers. | 0(0.0%) | 1(1.4%) | 4(5.7%) | 21(30.0%) | 44(62.8%) |
| I enjoyed participating in | 0(0.0%) | 0(0.0%) | 6(8.8%) | 16(23.5%) | 46(67.7%) |

| | | | | | |
|---|---|---|---|---|---|
| group sessions. | | | | | |

## Qualitative Findings

The thematic analysis revealed four core themes. The first theme focuses on caregivers' overall attitudes toward *KINDER*, including its alignment with their values. The second theme pertains to caregivers' beliefs about the effectiveness of the intervention in improving their caregiving relationships. The third theme captures the perceived difficultly of participating in the program relative to its perceived overall value. The final theme highlights opportunities the caregivers identified for refining future implementations of *KINDER*. Multimedia Appendix 1 presents the demographic characteristics of each caregiver. Table 4 provides exemplars of each component of the Sekhon TFA model [33].

**Table 4:** Exemplars of each component of acceptability from the Sekhon TFA Model.

| Component | Exemplar |
|---|---|
| **Acceptability** | *I think this program should be shared the minute that somebody is diagnosed with something. The doctor should say, 'Hey. Go to this.' Because I wish I would have had this way in the beginning.* (CG 12) |
| **Affective attitude** | *I think that overall, I really loved how the program was – I felt – it gave a very honest picture of caregiving*. (CG 45) |
| **Intervention coherence** | Responding to question about the purpose of *KINDER*: *To promote, like you said, a healthier relationship between the care recipient and the caregiver. And also, I think there was a lot of emphasis on taking care of yourself as a caregiver in order to give better care to the recipient.* (CG 35) |
| **Perceived effectiveness** | *Learning all those, like, skill from the book and then, um, kinda like how to, uh, divert or think of positive side instead of, like, uh, drilling on the negative side of why I am taking care of this person. Um, I think, um, it really helpful in building relationship with my parent. Um, it helped me to, um, learn, um, how to see silver lining in the situation*. (CG 14) |
| **Burden** | *The only thing that I saw, for me, personally, it would've been a little bit easier if the meetings were in the evening. . . That's why I missed the last one because it was – I work during the day.* (CG 29) |
| **Opportunity cost** | *And then, overall, as I think back at it, I would say it was a very good use of my time. One can't be reminded enough of things that fall into this category. I mean, we're talking about the lives and wellbeing of* |

| | |
|---|---|
| | *our loved ones.* (CG 15) |
| **Self-efficacy** | *And the other thing is the lessons, because there was one week I didn't do it. So, the second week, I forgot which lesson, I doubled it. So, and I don't feel bad. I says, "I can catch up. It's okay." So, this structure is real good.* (CG 19) |

## *Theme 1: Caregivers reported a positive perception of the KINDER Intervention*

The first theme characterizes caregivers' overall attitudes toward *KINDER*, including the extent to which they enjoyed participating, understood the intervention's purpose, and how well the approach aligned with their values. Within the TFA model, this theme addresses the affective attitude, intervention coherence, and ethicality components of acceptability.

### Caregivers expressed a positive attitude toward *KINDER*

Caregiver descriptions about their experiences with the intervention were overwhelmingly positive: "I loved the class," said one caregiver (CG 45). Another shared, "I think this program should be shared the minute that somebody is diagnosed with something" (CG 12). Similarly, when closing out their interview, a participant caring for her husband expressed her wishes for *KINDER* to continue: "I will be praying that God will bless your program and help it to really help a lot of people to have a more positive relationship in caregiving" (CG 9).

### The intervention appeared coherent, and caregivers understood its intended purpose

Caregivers understood that *KINDER* was developed "to promote a healthier relationship between the care recipient and the caregiver" (CG 35) and encourage a "kinder, gentler, more understanding approach [to caregiving]" (CG 15). They were also cognizant that *KINDER* focused on relationship quality "to increase the quality of care that the people—the care recipients—get" (CG 9). While the intervention did not directly indicate that one of its goals was to prevent EM, caregivers were aware that part of improving the care relationship also included preventing negative interpersonal interactions. When asked about *KINDER*'s purpose, one caregiver helping her mother responded that it was to "prevent as much hostile or negative

interaction that can easily arise in interacting with a loved one" (CG 42).

### Caregivers felt *KINDER* aligned with their values

Despite tackling difficult topics, responses from participants suggest the intervention aligned with their values. "I feel very positive about the approach . . . I agree with the approach and how to handle situations," said one participant (CG 35). Another caregiver particularly liked how the program emphasized that caregivers did not need to be "perfect" in their role. She felt that, in stressing this point, "it raised the standards of kindness, but it diminishes the standards of perfectionism" (CG 9).

Of particular interest to the investigators was whether the story-based videos depicting examples of relationship strain and potential mistreatment were consistent with caregivers' values and preferences. Most participants were enthusiastic about these videos. They felt the videos were relevant: "I loved the video material. I thought that was super helpful and you could relate" (CG 45). One caregiver even expressed that she could see herself in the videos: "So, that week seven video could've been me. The kitchen one. I do remember that" (CG 27). Although most caregivers felt that the videos were tasteful in their approach, a few caregivers expressed that the videos were a "little over the top," (CG 22). One participant remembered thinking to herself: "'Really? People can go there?'" (CG 12). Moreover, while there was awareness that while the videos could be uncomfortable to watch, there was a general feeling that their value was worth some potential discomfort. The same participant who expressed initial surprise that caregivers "can go there" later recognized their worth during her interview, saying that the videos "remind you that you can go to a place if you're not ready, and I think by being ready you can avoid going there" (CG 12).

## *Theme 2: Caregivers described the intervention as beneficial to their care relationship*

Participants perceived that *KINDER* helped them address their caregiving relationship

and improved the quality of caregiving. Within the TFA model, this theme primarily relates to the “perceived effectiveness” component.

### *KINDER* facilitated a perceived reduction in relationship strain

Specifically, caregivers reported that *KINDER* helped them reframe their interactions with the care recipient, enabling them to better understand their behaviors and respond more appropriately:

> So, really the *KINDER* program just really opened my eyes to the fact that I wasn’t seeing him as he is today. I was reacting to him from old historical references instead of what’s happening present day right here now. (CG 35)

One caregiver, currently caring for his wife, reflected on how participating in the program would have benefited him when he cared for his late father. He described feeling anger toward his father and wondered whether attending a course like *KINDER* might have influenced his earlier approach to caregiving:

> I was trying to be very helpful, but I was also quite angry with him. And, um, had I taken a course like this or been exposed in some way to, um, more effective caregiving, I think I would have approached him very differently. (CG 15)

### Caregivers gained skills to help manage relationship strain and improve care quality

Several participants provided specific examples of how they applied the intervention’s lessons to modify their caregiving approach. For example, one of the strategies taught in *KINDER* to reduce relationship strain is to “go with the flow.” One caregiver helping her mother described how she has applied this mantra: “I used to think, my mom has to listen to me, and that’s the way it’s supposed to be. Now, I’m more relaxed. That’s the way. I will go with the flow” (CG 19). Participants also applied other skills to reduce relationship tension with the care recipient, such as redirecting the care recipient’s attention to manage the behavioral symptoms of dementia or cognitively reframing the situation:

> Learning all those skills from the book and then, kinda like how to divert or think of positive side instead of drilling on the negative side of why I am taking care of this person. I think it's really helpful in building relationship with my parent. (CG 14)

Similarly, another participant recognized the need to modify her interactions with her husband in response to changes in his cognition: "You know I said, 'Oh, wait a minute, I've got to, you know, tone it down a little bit,' and just [use] a different approach, and just some reminders about of all of that" (CG 12). Perhaps most interesting was the caregiver who shared a reflection exercise responses, where they applied intervention content about intimidating body language to their care situation:

> My week seven reflection was basically, I just wrote something very short, I wrote "Physical aggression that doesn't involve hitting, but that can be just as affecting. It causes more confusion and is likely more isolating. Even though she is very tough, it's not nice to make things scarier than they need to be for her, ever." (CG 27)

This reflection reinforced an important messages about relationship strain and psychological mistreatment from the intervention, highlighting where caregiver's body language can be a source of intimidation.

### *Theme 3: Caregivers felt participating in KINDER was worthwhile*

The third theme explores whether the caregivers felt the time and effort required to participate in *KINDER* was justified. This theme aligns with the burden, opportunity costs, and self-efficacy components within the TFA model. Overall, caregivers reported participation in *KINDER* was worthwhile and not overly burdensome.

#### Caregivers reported that *KINDER* was "a very good use of time" (CG 15)

When asked whether there was content that should be removed or condensed, none of the caregivers had any suggestions: "I didn't really find anything that was just like so left field that I was like, 'Oh, I don't need this.' Not at all. I felt like every reflection, I had something to

write and say" (CG 27). Echoing this statement, another caregiver said, "I think all of the chapters [of the workbook] are very helpful. I think the whole thing should be kept" (CG 14). Even one initially skeptical participant eventually came around to acknowledging that *KINDER* was worthwhile:

> And I think when it was first going on, I was wondering, "What? Do I really need to be involved in this kind of stuff?" And the answer was of course. Resoundingly so. And so, I'm feeling, I would say, a lot closer to [care recipient name] now than I was three or four years ago. (CG 15)

#### Caregivers either found that participation was not overly burdensome

When caregivers reported any difficulty in participating, they felt that any burdens imposed by the intervention were worth the effort. For example, some caregivers felt the independent lesson readings in the workbook could be overwhelming:

> I will say it was hard to make the time to do the reading. And that's interesting because I was not in the total thick of it. If I had had to try to do that reading and watch the videos while I was in the total thick of it, I don't know if I would have been able to do it. (CG 42)

On the other hand, sharing enthusiasm for workbook content, another caregiver said, "I'm never throwing this book away" (CG 29). Caregivers appreciated the email reminders sent each week to help keep them on track with readings and practice exercises: "I love your reminder every week to do your homework. That's a good reminder because we're so busy with other things" (CG 19). Caregivers reported that the regular reminders and the discussion meetings created a sense of "accountability," where, as one caregiver described it, "you're [not] just sort of on an island, reading a book. It's like, no, you're in touch with people that are inquiring as to these things" (CG 27).

### *Theme 4: Caregivers identified opportunities to improve KINDER*

The fourth theme describes insights caregivers offered into how *KINDER* could be

adapted to better meet their needs. While participants generally found the program worthwhile, interviews identified opportunities for improvement, particularly around increasing caregiver interaction and making participation more convenient. The following recommendations highlight key areas for improving the program's accessibility and engagement.

### Recommendation 1: Provide additional opportunities for caregivers to connect

The primary recommendation to improve *KINDER*'s acceptability was to provide more opportunities for caregivers to connect with other cohort members. Several caregivers suggested increasing the number of group discussion sessions. "I think you should have more online meetings with everybody where they can discuss things," shared one caregiver (CG 22). Another participant felt that meeting once per week may have been more beneficial than the three meetings spread throughout the eight weeks: "I feel like maybe once a week would be a better way to gain insight from others going through the same or similar situation" (CG 35).

### Recommendation 2: Facilitate opportunities for interaction during the discussion sessions

Despite an overall appreciation for the group sessions, some caregivers felt sessions they could have been more interactive. One caregiver shared that the groups "need more interaction between each other somehow, or a little group breakout room" (CG 27). Other ideas included encouraging caregivers to turn on their cameras during the group sessions and incorporating more icebreakers to help participants could get to know each other better. One participant offered insights on improving sessions facilitation to promote more exchange, noting that when a single caregiver's concern took up a large part of the group session, it negatively affected their experience: "I feel for them and I'm sorry that they're experiencing that . . . But I do feel like that did go on a little bit long" (CG 45).

### Recommendation 3: Integrate supports to make participation more convenient

Caregivers proposed ways to make participation more convenient. Some suggested

sending text message reminders, in addition to emails, for independent lessons and discussion sessions: “I don’t get on my email as much, but my text [messages]—I always have my phone” (CG 12). To make it easier to participate in independent lessons, another idea was to audio record the assigned readings so that caregivers could listen to lessons while doing other activities such as “during their commute” (CG 29). Another caregiver suggested delivering the program via an app or web-based platform where they could complete lesson activities online: “There needs to be just look at it on your phone . . . . There’s click here to enter it to keep a log, to use the website or whatever, to save your work” (CG 42). When asked about how to reconcile different needs and preferences of caregivers regarding the integration of technologies, like an app or website, one participant responded that the best solution was to offer choices and used a wheelchair ramp as an analogy: “People think, ‘Oh, let’s see what the majority will use.’ Who gives a crap? If one person needs a wheelchair ramp, we need a wheelchair ramp” (CG 42).

## Discussion

### Summary of Findings

This study aimed to assess the acceptability of the latest version of an intervention to prevent psychological EM by family caregivers to persons living with dementia. We are unaware of any other study that has reported on the acceptability of caregiver interventions developed to prevent EM, making this work a novel addition to the current literature. Findings support *KINDER*’s overall acceptability among caregivers to persons living with dementia. Responses to post-intervention satisfaction survey responses reflect that caregivers would recommend the intervention to other caregivers and that caregivers found each component of the intervention valuable. One of the primary changes between the current version of *KINDER* and the previous version is the addition of three virtual group discussion sessions. Survey data show that caregivers had a positive experience with these discussion groups. Qualitative data supports this finding, revealing that some caregivers would even be interested in additional

group discussions throughout the 8-week program. By using multiple methods of data collection, this study offers a holistic understanding of how *KINDER* was perceived by caregiver participants. In so doing, findings not only support the intervention's acceptability, but also highlight opportunities to continue improving caregivers' experiences during future program implementations.

Findings, particularly those from the qualitative interviews, demonstrate a positive affective attitude towards the program, alignment with values (ethicality), and the overall belief that the demands of participating were not too high and mostly worthwhile (opportunity cost and burden). These findings align with those of the initial first web-based, asynchronous version of *KINDER* 1.0, where participants also completed qualitative interviews following the intervention [18]. Whereas the earlier study applied the Theoretical Framework of Acceptability after conducting thematic analysis, in this study, this study integrated components of the framework into the coding process to more clearly evaluate their application to caregiver experiences with *KINDER* more closely [33].

One of *KINDER*'s strengths identified in both studies was the inclusion of story-based videos. Videos and visual examples have been found to enhance the experience of caregivers participating in interventions [38]. Prior studies of digital caregiver interventions have found that participants value videos portraying the "messiness" of caregiving [39]. A comparison of qualitative findings from the two feasibility studies of *KINDER* suggests that challenges related to participation were largely addressed. For example, in the earlier study (*KINDER* 1.0), caregivers reported technological issues affected their experiences. After simplifying the mode of delivery from a web-based delivery platform to a PDF or print workbook, this barrier was resolved. Another obstacle reported by caregivers who participated in *KINDER* 1.0 was that the content could be overwhelming, and they lacked time to complete independent lessons. However, fewer caregivers in the revised *KINDER* program identified this as a challenge, likely

due to its regular check-in reminders, group discussion sessions, and flexible scheduling that allowed participants to “catch up” on independent learning activities when needed. Furthermore, we also found that group-based sessions recommended by caregivers in the earlier study enhanced participant experiences in the *KINDER* intervention. Caregivers, for the most part, felt connected to others in their cohort. Some even wished for more opportunities to connect. This finding is consistent with those from similar caregiver interventions that use a hybrid group-based and asynchronous delivery approach [39, 40].

## Comparison with Other Interventions to Support Caregiving Relationship Quality

There are several interventions focused on improving caregiving relationships, though not necessarily on EM prevention, providing points of comparison with our findings. In the *At The Crossroads* caregiver intervention, researchers conducted a three-arm randomized controlled trial comparing a four-session, group-based caregiver psychoeducational intervention on driving cessation among persons living with dementia to an information-only condition, and a control condition [41]. Their findings related to intervention acceptability align with those from the most recent version of *KINDER* described in the present study. While focused specifically on driver cessation, the *At The Crossroads* content included building an understanding of what driving cessation might mean to someone living with dementia, as well as communication techniques for discussing this topic with them. Like *KINDER*, this intervention emphasized the potential for varying priorities between the caregiver and person living with dementia, particularly related to the balance of safety and autonomy. *At The Crossroads* also included a story-based video depicting a couple navigating driver cessation as a part of its delivery. Findings revealed that caregivers in the intervention group felt more prepared to discuss driving cessation with their family member and were less worried about upsetting or angering the care recipient when they initiated driving cessation discussions

compared to those in the information-only control group. These caregivers were also more likely to have initiated conversations about driving cessation, with 90% reporting doing so compared to 52% in the information-only group and 58% in the control group. This aligns with findings from our study, wherein caregiver participants similarly felt more prepared to reframe interactions with the care recipient and reported enacting skills taught in the intervention to promote positive care relationships. While the two interventions—*At The Crossroads* and *KINDER*—have distinctly different overall goals (driving cessation versus preventing EM), both interventions leverage existing interpersonal relationships to improve relational functioning through similar approaches.

Another intervention well-suited for comparison is the *Support, Health, Activities, Resources, and Education* (*SHARE*) intervention. This intervention is designed to reconcile care values between caregivers and those living with dementia while creating a plan for future care based on these shared values [42]. Unlike *At a Crossroads* and *KINDER*, the *SHARE* is in-person intervention that includes both care partners—the caregiver and the care recipient—and a trained counselor. However, like these other interventions, *SHARE*, delivered over six weekly sessions, and explicitly addresses the reconciliation of care values, including safety and autonomy, among others. Caregivers participating in the randomized controlled trial of *SHARE* reported satisfaction with the overall experience of participating, the counselor, the weekly sessions, and their relationship functioning with the care recipient post-intervention [42]. Qualitative findings from an earlier, 7-session version of *SHARE* also affirm overall satisfaction and are consistent with findings from *KINDER*, including the application of new skills, development of knowledge, and greater awareness of available resources [43]. Perhaps more interesting is that caregivers in *SHARE* reported similar challenges to those identified in the evaluation of *KINDER* 1.0, such as challenges in finding time to participate and difficulties navigating emotionally intense content. These similarities suggest that interventionists should

be mindful of the potential for emotional distress among participants, particularly when discussing sensitive topics, such as interpersonal relationships between care partners.

## Opportunities to Improve the Current *KINDER* Intervention

Findings from this study indicate opportunities to improve *KINDER* and enhance intervention acceptability. First, caregivers expressed an interest in using technology to enhance convenience when participating, suggesting text message reminders in addition to email. *CuidaTEXT*, a recent text-messaging-based psychoeducational intervention, demonstrated high acceptability among Latino family caregivers to persons living with dementia [44]. These findings raise the possibility that integrating text messaging into *KINDER* could further improve its acceptability. However, while text messaging is a relatively simple technology integration, caution is needed when considering more complex digital intervention delivery models where the time and effort required for participants to learn these systems may outweigh their perceived benefits [38]. *KINDER* is unique in that its first iteration took place via a web-based portal, before it was revised to make it more accessible and easier for caregivers to participate. This raises a dilemma: *to what extent should caregiver preferences for integration of digital technologies be heeded when prior applications demonstrate a lack of engagement?*

Multiple factors should be considered when addressing this question. First, the context of intervention delivery for caregivers has changed tremendously in recent years. Social distancing restrictions put in place during the COVID-19 pandemic accelerated the transition to digitally delivered programming, which may have increased caregivers' comfort with digital platforms [45]. While the pandemic most likely accelerated acceptance and uptake of digital caregiver interventions, this shift likely occurred within the broader context of already evolving social and cultural norms around technology adoption as society continues to acclimates to emerging technologies [20]. If the online version of *KINDER* (*KINDER* 1.0) were offered today, it is plausible that it would achieve greater acceptance than when it was initially offered from

2020 to 2021. Another consideration was illustrated by a study participant who revealed the importance of accommodating varying needs and preferences for intervention delivery: “If one person needs a wheelchair ramp, we need a wheelchair ramp.” This statement aligns with calls to prioritize health equity when developing and testing digital solutions [46]. Based on our findings, we propose that, rather than optimizing an intervention’s delivery approach to fit the needs of most caregivers, interventions should instead be offered in multiple formats to accommodate varying needs.

Further, while caregivers expressed an interest in having more opportunities to connect with group members, some participants in the *KINDER* program voiced concerns about the perceived low level of engagement from others. For example, one caregiver suggested the facilitators encourage participants to turn on their cameras during group sessions so others could see their faces, and another suggested adding more icebreakers to kick off the group sessions. In their qualitative study of the *TeleSavvy* intervention, Kovaleva et al. (2022) identified a similar issue, where participants expressed bother when they noticed other participants were distracted. Low engagement among certain participants can undermine the experience of others, who may benefit less from group discussion and shared examples from others, making this a serious concern. At the same time, behaviors that may appear as disinterest could be driven by factors related to health equity, such as lacking additional support that would allow a caregiver to participate in *KINDER* without disruption. Indeed, one caregiver in this study described having to listen to one of the discussion sessions while picking up her daughter from school, rendering her unable to contribute to group conversations. We partially addressed this in *KINDER* by encouraging caregivers to keep their cameras on during sessions, while also reminding them that it is okay to go “off camera” when needed. Still, given the variability this creates for participants between cohorts, further consideration may be needed to understand how to address participant engagement in synchronous group-based

caregiver interventions.

## Limitations

This study has limitations. First, the initial qualitative interviews were led by the lead investigator, who also co-facilitated the intervention. As a result, participants' responses may have been affected by a social desirability bias. However, there was no apparent difference in participant attitudes in interviews conducted with another member of the research team and those who spoke with the lead investigator. In both instances, caregivers provided both criticism and praise of the *KINDER* program. Rapport with the lead investigator may also have facilitated trust so that participants felt more comfortable sharing negative feedback and how they applied what they learned to manage challenging care relationships [47].

Another limitation is that this study conflated the concepts of usability and acceptability, recognized in the literature as distinct concepts. Although we applied a validated theoretical framework of acceptability to help evaluate our intervention's acceptability among caregivers, future studies should also include standardized measures of acceptability and usability that delineate these interconnected though distinct concepts to better inform intervention refinement [20, 38]. Nevertheless, we used an established acceptability framework (TFA) to guide the qualitative interview data collection and analysis, which enabled us to evaluate various dimensions of intervention acceptability.

## Conclusion

This study advances current knowledge on interventions for caregivers of persons living with dementia to prevent EM by demonstrating the acceptability of a novel intervention, *KINDER*. Additional research is needed to test the efficacy of the intervention, including the plausibility of theoretical mechanisms that may drive a reduction of psychological EM, and to continue evaluating the implementation of the intervention within health and social service settings. Nevertheless, by using quantitative and qualitative methods to assess multiple

components of acceptability, this study provides a robust picture of the acceptability of one of the few interventions designed to prevent EM in a family care context. If proven efficacious, the *KINDER* intervention has the potential to promote care that upholds the dignity and safety of both caregivers and persons living with dementia.

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## Conflicts of Interest

None declared

## Abbreviations

AD/ADRD: Alzheimer’s disease and related dementia
EM: Elder mistreatment
*KINDER*: Knowledge and Interpersonal Skills to Develop Enhanced Relationships
TFA: Theoretical Framework of Acceptability

## Abbreviations

Data from both studies described in this manuscript are not available due to the sensitive nature of topics discussed with participants.

## Multimedia Appendix 1: Demographic information for qualitative interviews (*N* = 11)

| Case | Age | Gender | Race | Ethnicity | Highest Level of Education | Care Recipient Relationship to er | Length of Caregiving |
|---|---|---|---|---|---|---|---|
| 9 | 75 | Woman | White | Not Hispanic or Latino | Bachelor's degree or Higher | Husband | More than 5 years |
| 12 | 63 | Woman | White | Hispanic or Latino | Bachelor's Degree or Higher | Husband | 3 to 5 years |
| 14 | 43 | Woman | Asian | Not Hispanic or Latino | Bachelor's Degree or Higher | y)Father (including | 1 to 2 years |
| 15 | 77 | Man | White | Not Hispanic or Latino | Bachelor's degree or Higher | Wife | 3 to 5 years |
| 19 | 79 | Woman | Asian | Not Hispanic or Latino | Bachelor's degree or Higher | Mother | More than 5 years |
| 22 | 75 | Man | e More than one | Not Hispanic or Latino | Bachelor's Degree or Higher | Wife | More than 5 years |
| 27 | 46 | Woman | Other | Not Hispanic or Latino | Some College | Other relative | 3 to 5 years |
| 29 | 46 | Woman | Other | Hispanic or Latino | Vocational Training | Mother (including step and in-law) | More than 5 years |
| 35 | 67 | Woman | e More than one | Hispanic or Latino | Associate's degree | Other relative | 3 to 5 years |
| 42 | 47 | Woman | White | Not Hispanic or Latino | Bachelor's degree or Higher | Mother (including step and in-law) | 3 to 5 years |
| 45 | 53 | Woman | White | Hispanic or Latino | Some College | Husband | More than 5 years |



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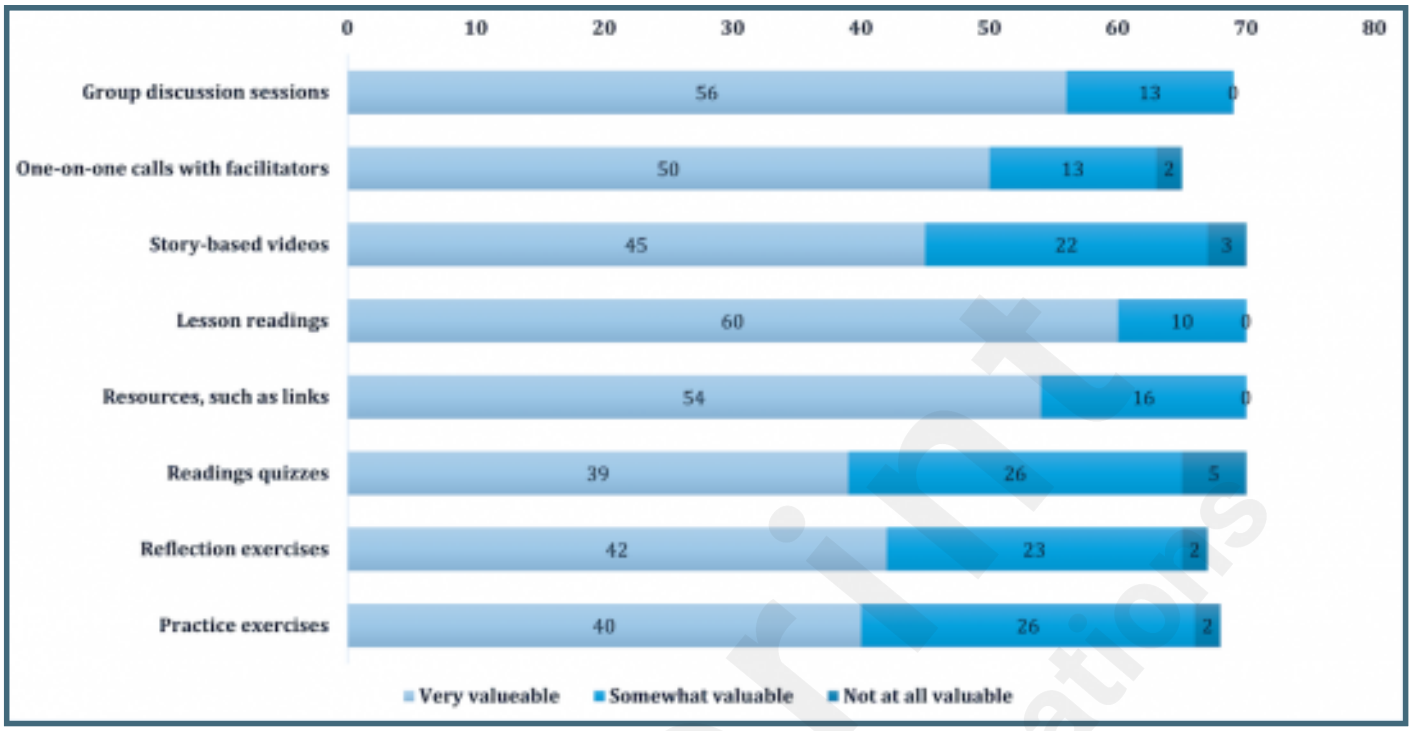
# Supplementary Files

# Figures

Satisfaction survey results on the perceived value of KINDER intervention components (N = 71).



# Multimedia Appendixes

Demographic information for qualitative interviews (N = 11).
URL: http://asset.jmir.pub/assets/4229ffe29a41558707fa3db45d87b72b.docx